FIG. 1
(RELATED ART)

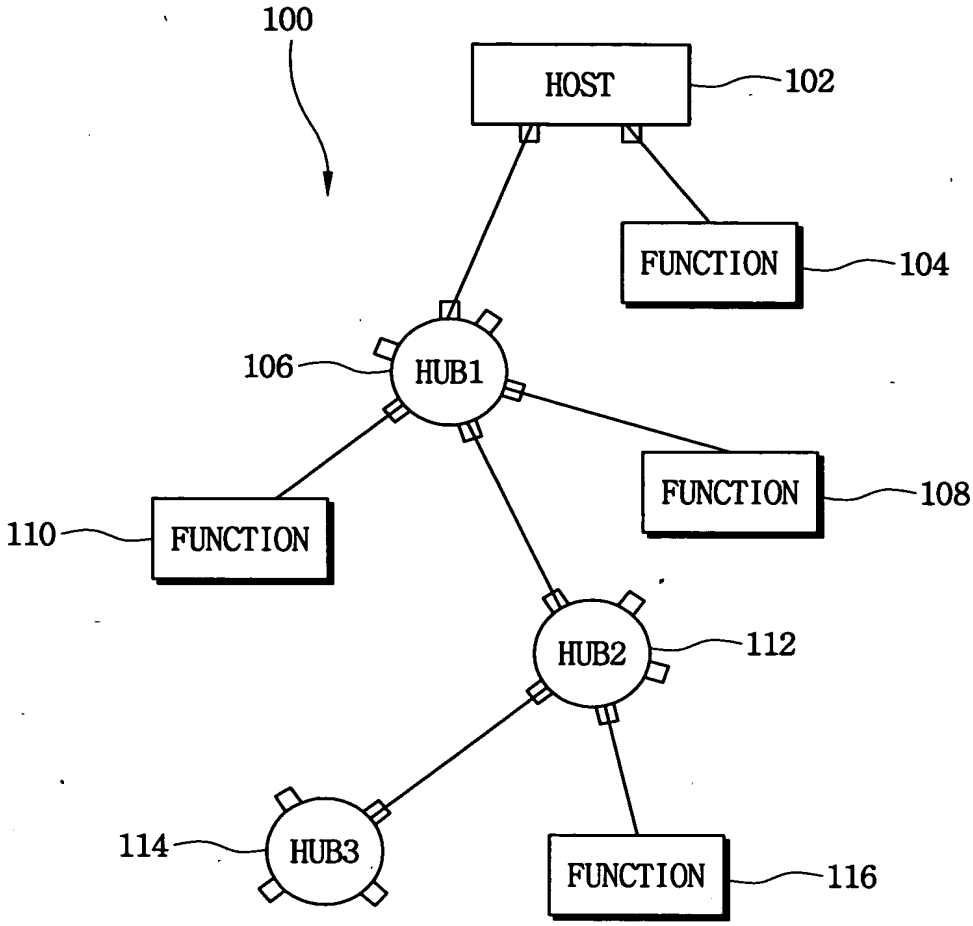


FIG. 2
(RELATED ART)

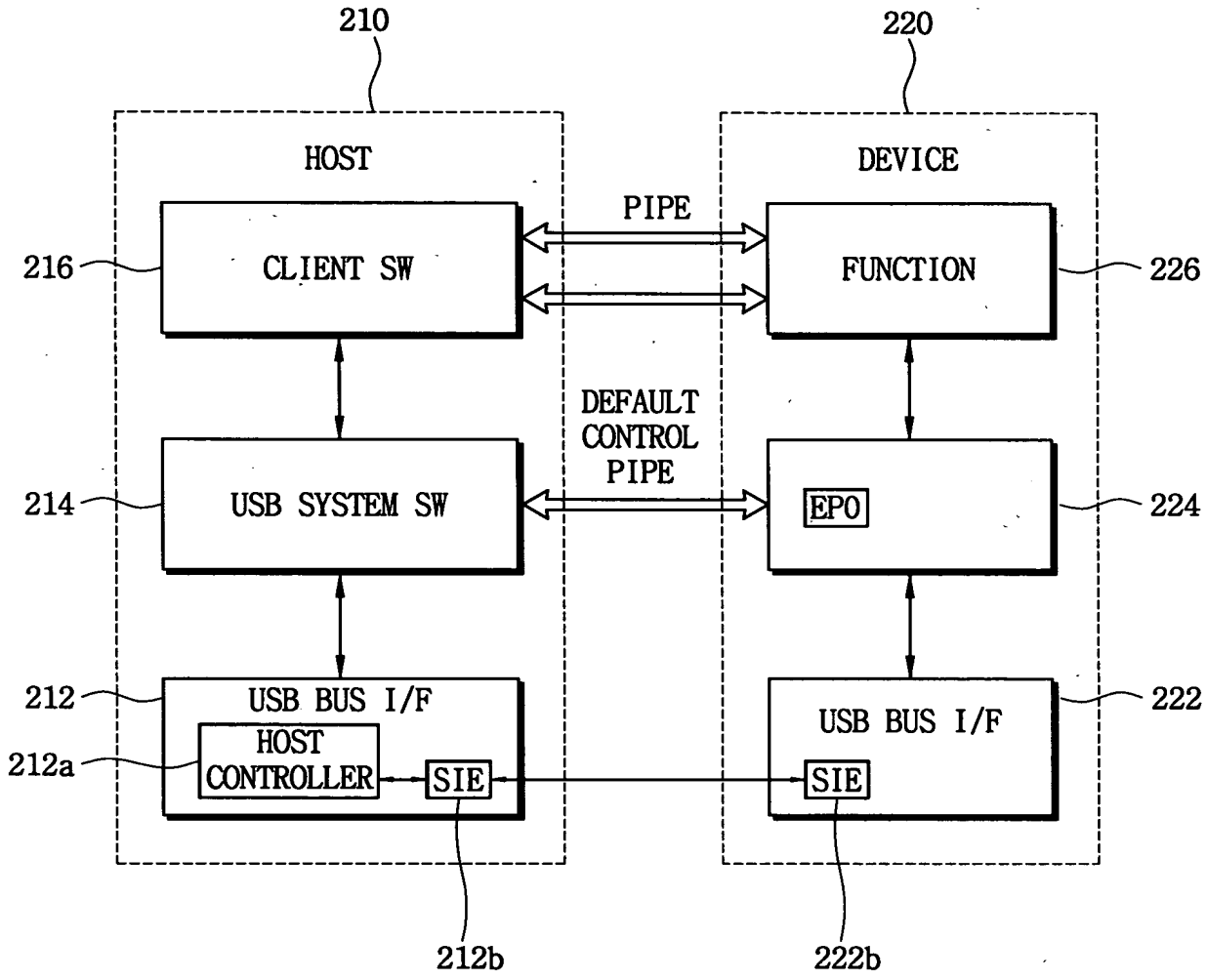


FIG. 3
(RELATED ART)

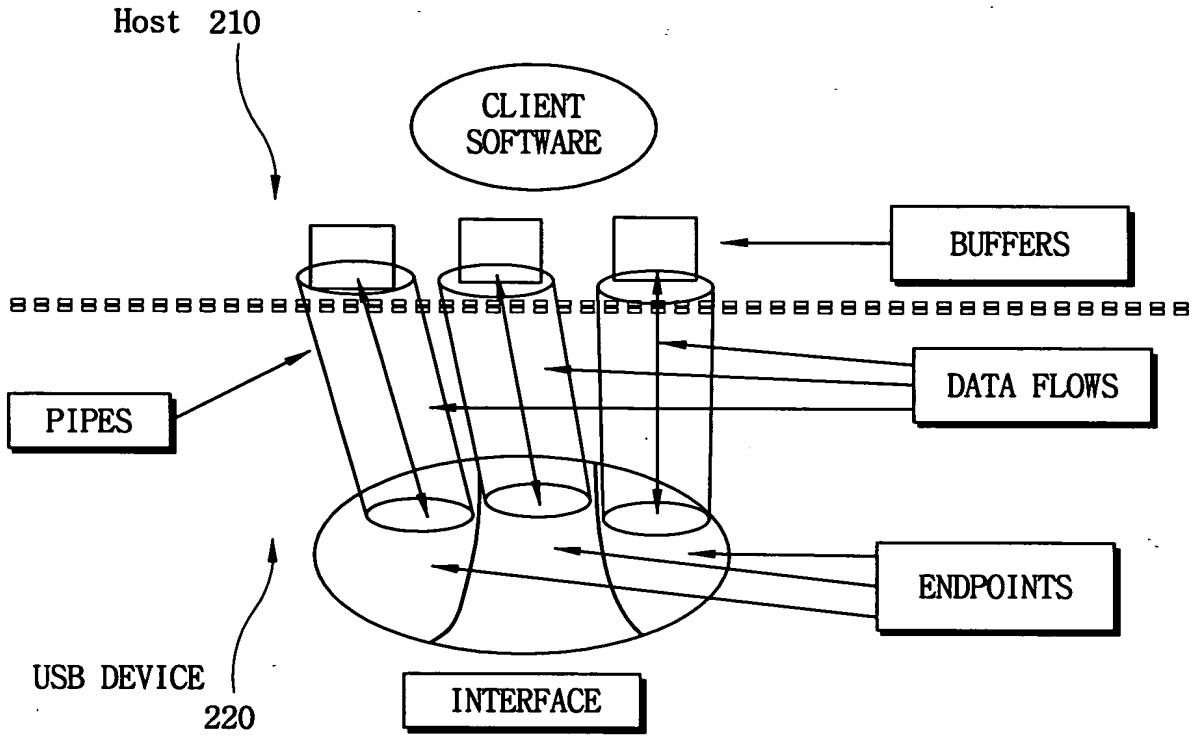


FIG. 4A
(RELATED ART)

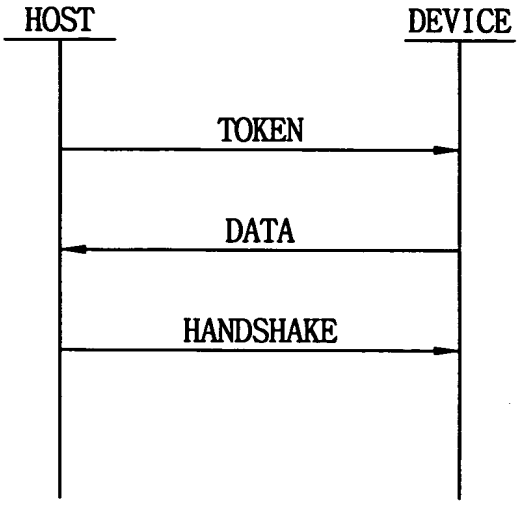


FIG. 4B
(RELATED ART)

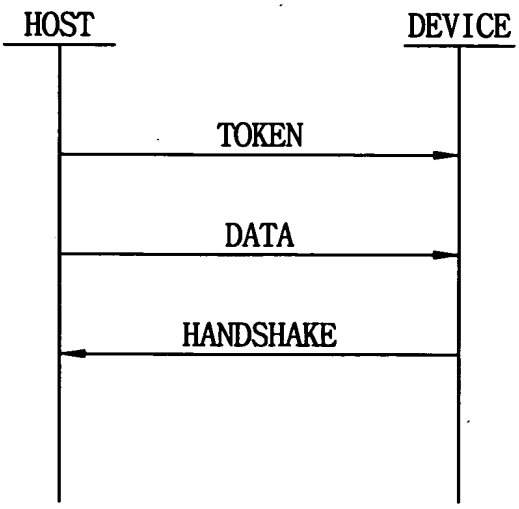


FIG. 5A
(RELATED ART)

FIELD	PID	ADDR	ENDP	CRC5
BIT	8	7	4	5

502

FIG. 5B
(RELATED ART)

FIELD	PID	FRAME NUM	CRC5
BIT	8	11	5

504

FIG. 5C
(RELATED ART)

FIELD	PID	DATA	CRC16
BIT	8	0-8192	16

506

FIG. 5D
(RELATED ART)

FIELD	PID
BIT	8

508

FIG. 6
(RELATED ART)

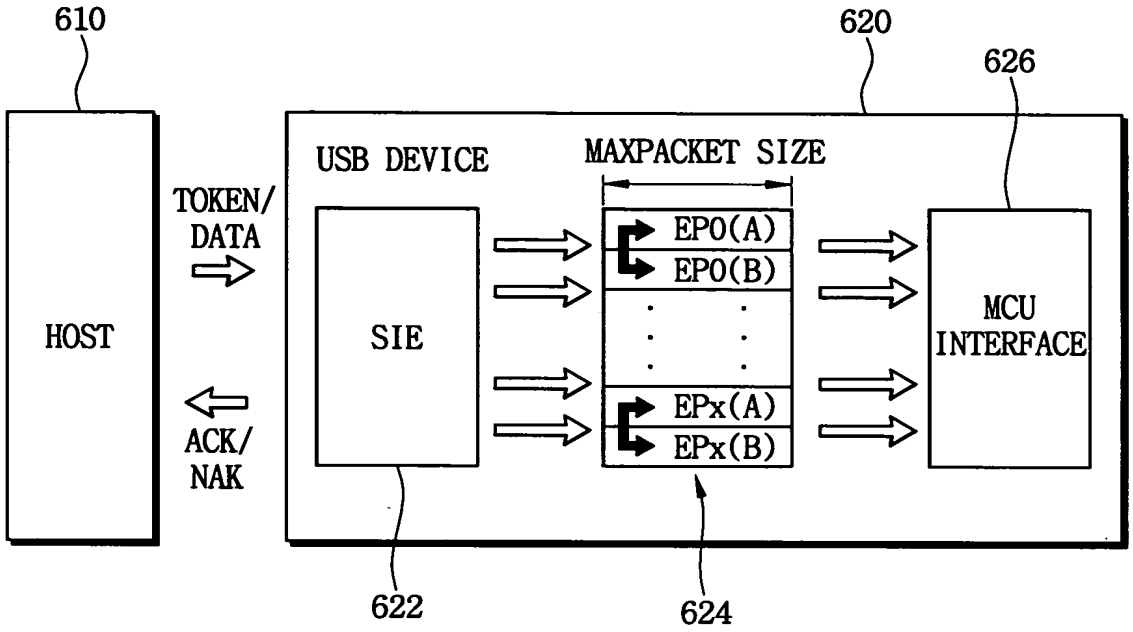


FIG. 7

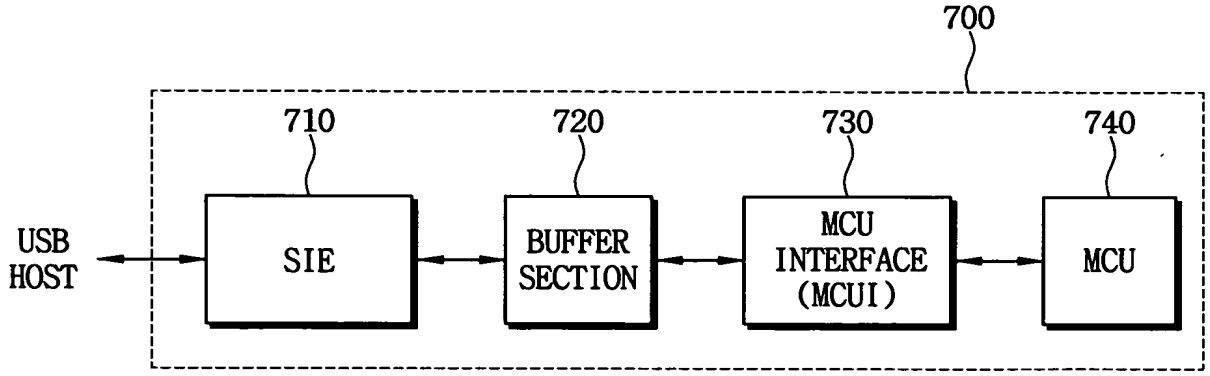


FIG. 8

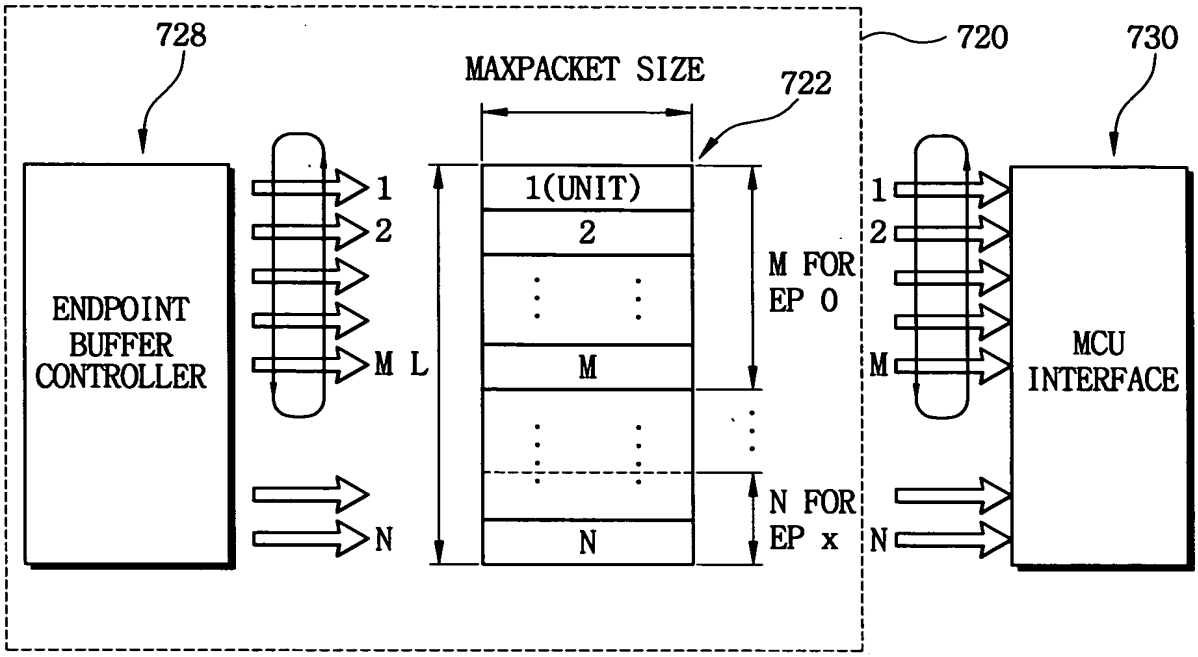

728
720
730
MAXPACKET SIZE
722
ENDPOINT BUFFER CONTROLLER
1
2
M
L
N
1(UNIT)
2
M
N
M FOR EP 0
N FOR EP x
MCU INTERFACE

FIG. 9

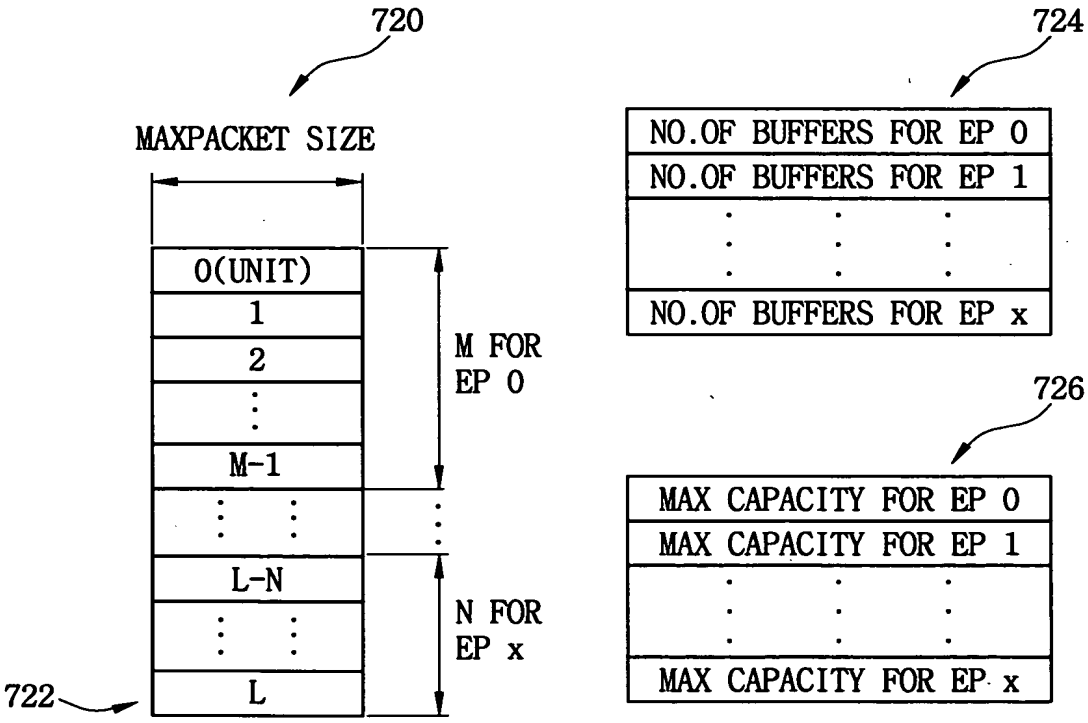

720
MAXPACKET SIZE
0(UNIT)
1
2
M-1
L-N
L
722
M FOR EP 0
N FOR EP x
724
NO.OF BUFFERS FOR EP 0
NO.OF BUFFERS FOR EP 1
NO.OF BUFFERS FOR EP x
726
MAX CAPACITY FOR EP 0
MAX CAPACITY FOR EP 1
MAX CAPACITY FOR EP x

FIG. 10

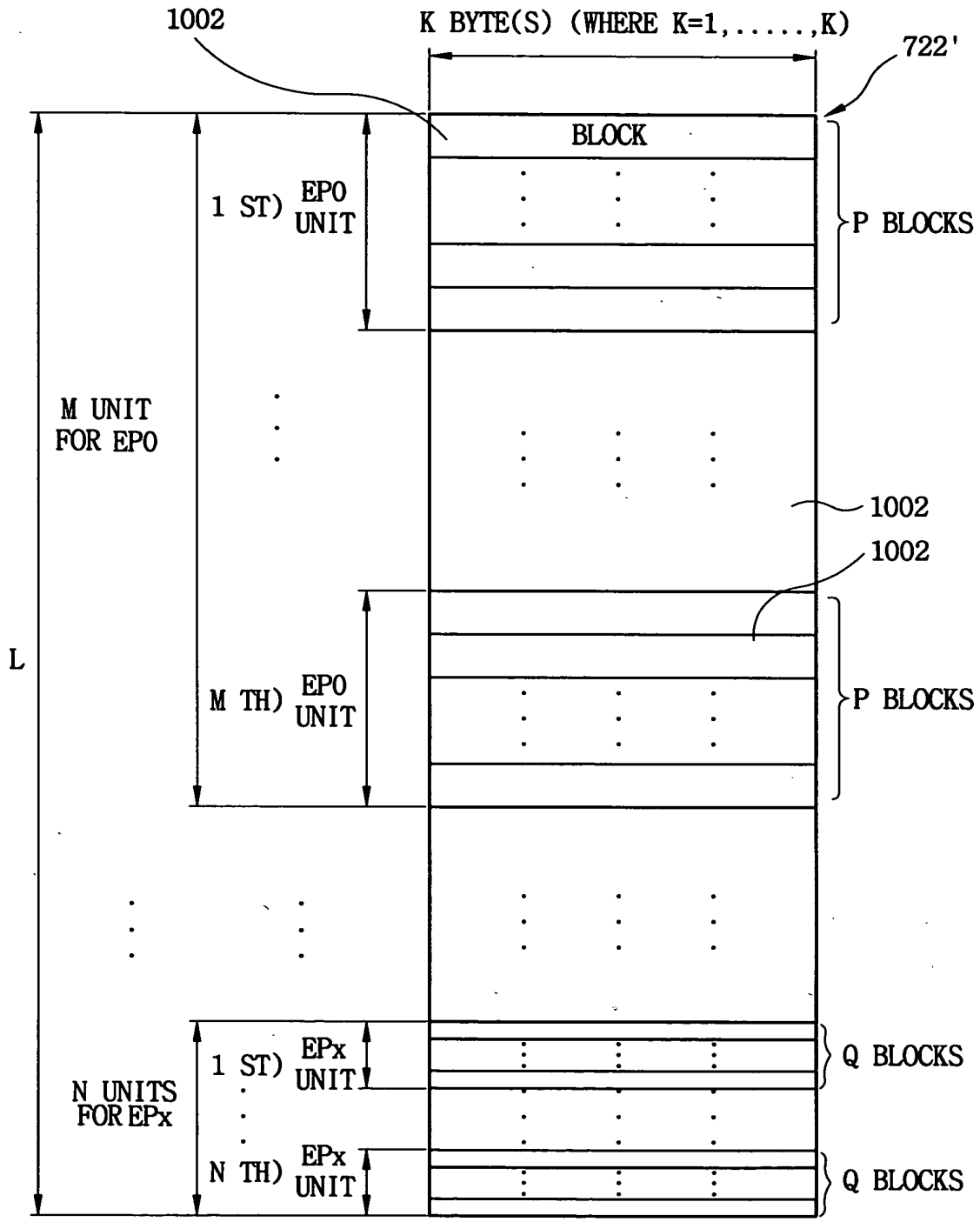

1002
K BYTE(S) (WHERE K=1,.....,K)
722'
BLOCK
1 ST) EP0 UNIT
P BLOCKS
M UNIT FOR EP0
1002
1002
L
M TH) EP0 UNIT
P BLOCKS
1 ST) EPx UNIT
Q BLOCKS
N UNITS FOR EPx
N TH) EPx UNIT
Q BLOCKS

FIG. 11

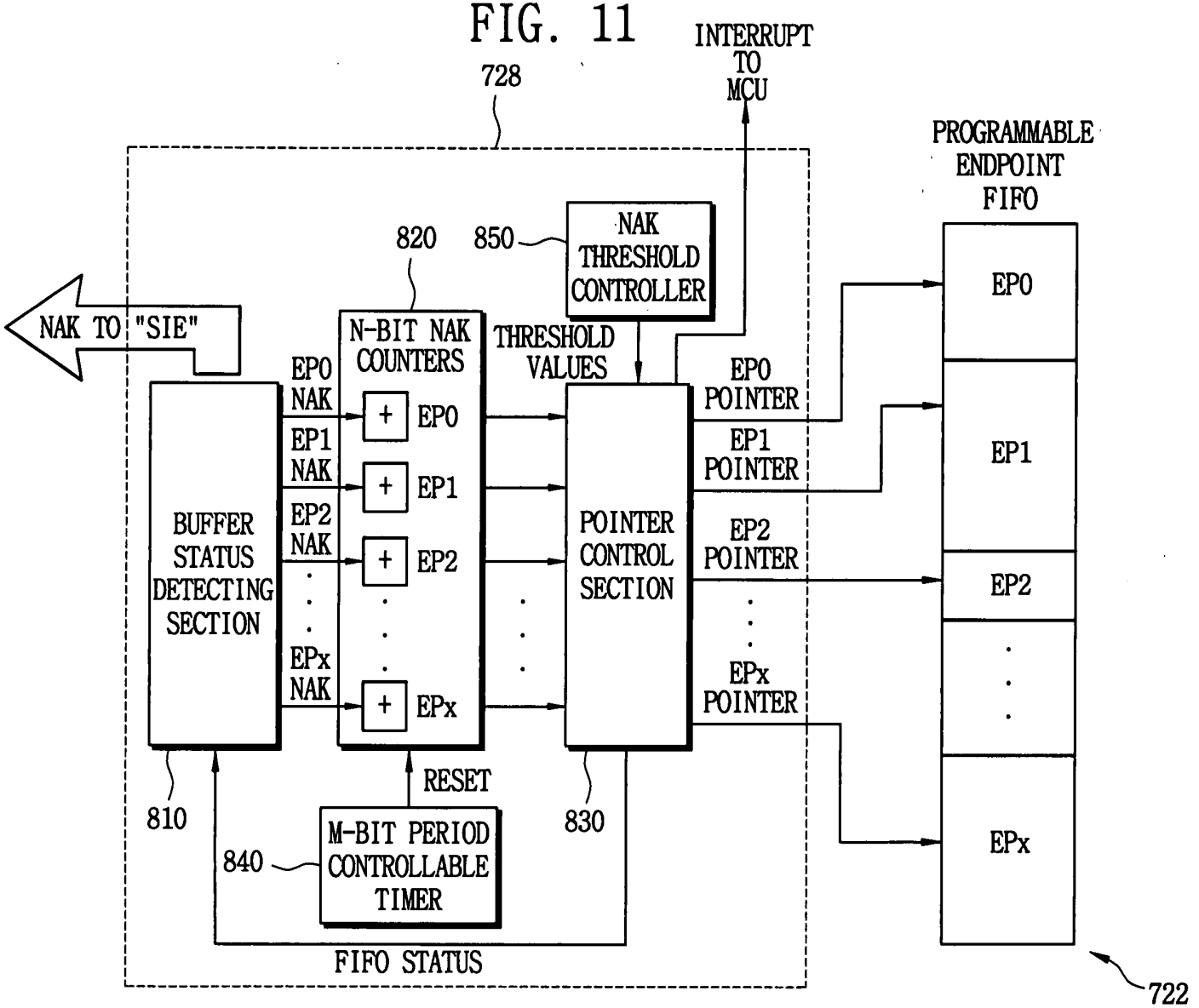

728
INTERRUPT TO MCU
PROGRAMMABLE ENDPOINT FIFO
820
850
NAK THRESHOLD CONTROLLER
NAK TO "SIE"
N-BIT NAK COUNTERS
THRESHOLD VALUES
EP0 NAK
EP1 NAK
EP2 NAK
EPx NAK
EP0
EP1
EP2
EPx
BUFFER STATUS DETECTING SECTION
POINTER CONTROL SECTION
EP0 POINTER
EP1 POINTER
EP2 POINTER
EPx POINTER
EP0
EP1
EP2
EPx
RESET
810
830
840
M-BIT PERIOD CONTROLLABLE TIMER
FIFO STATUS
722

FIG. 12

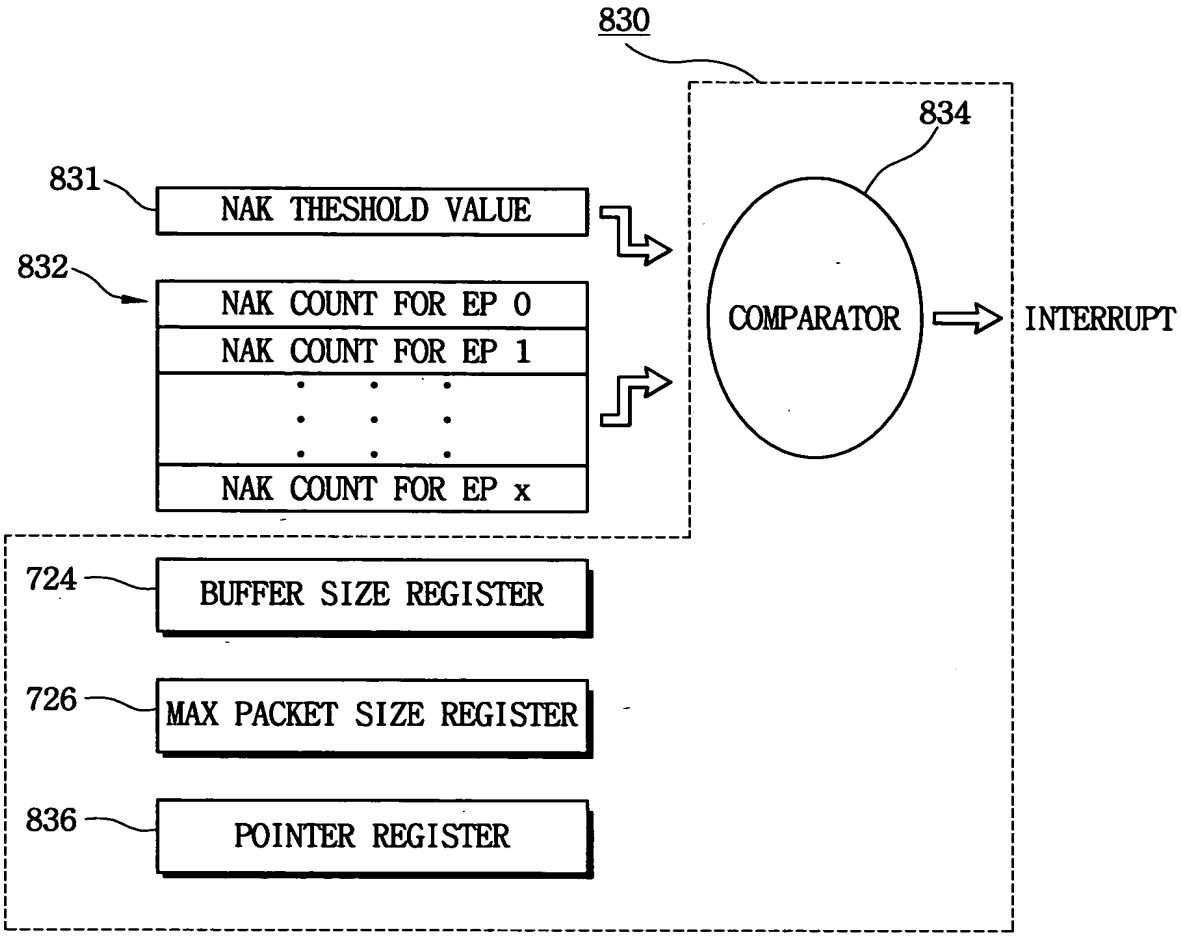

830
834
831
NAK THESHOLD VALUE
832
NAK COUNT FOR EP 0
NAK COUNT FOR EP 1
NAK COUNT FOR EP x
COMPARATOR
INTERRUPT
724
BUFFER SIZE REGISTER
726
MAX PACKET SIZE REGISTER
836
POINTER REGISTER

FIG. 13

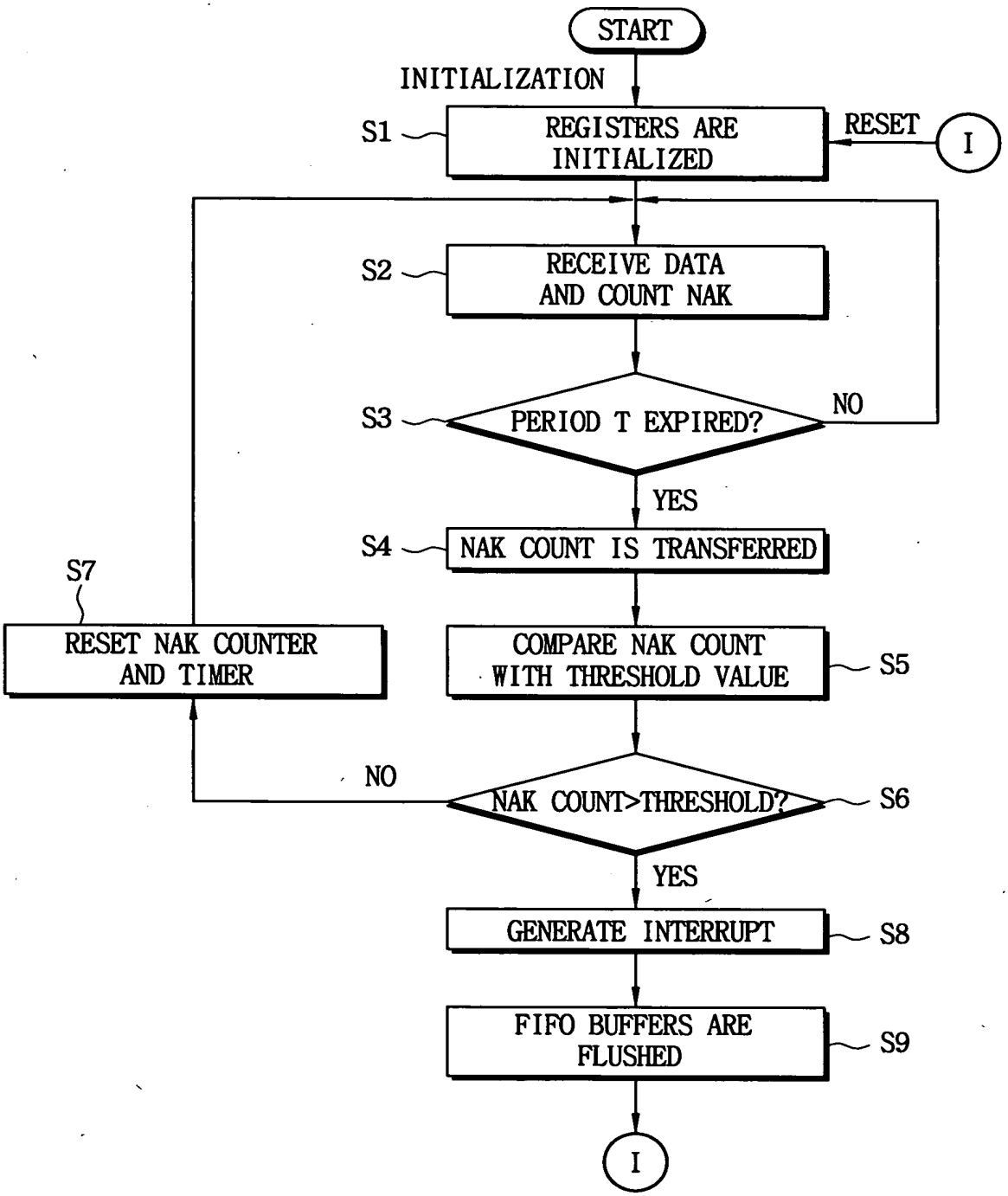
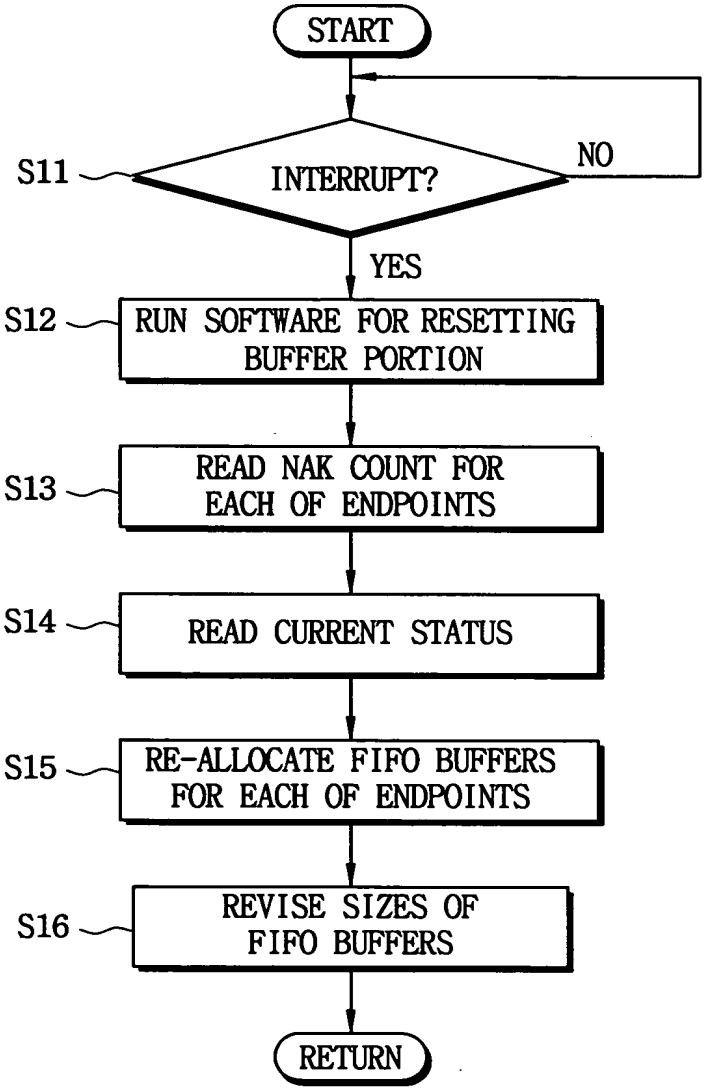

START
INITIALIZATION
S1
REGISTERS ARE INITIALIZED
RESET
I
S2
RECEIVE DATA AND COUNT NAK
S3
PERIOD T EXPIRED?
NO
YES
S4
NAK COUNT IS TRANSFERRED
S7
RESET NAK COUNTER AND TIMER
COMPARE NAK COUNT WITH THRESHOLD VALUE
S5
NO
NAK COUNT>THRESHOLD?
S6
YES
GENERATE INTERRUPT
S8
FIFO BUFFERS ARE FLUSHED
S9
I

FIG. 14


START
S11
INTERRUPT?
NO
YES
S12
RUN SOFTWARE FOR RESETTING BUFFER PORTION
S13
READ NAK COUNT FOR EACH OF ENDPOINTS
S14
READ CURRENT STATUS
S15
RE-ALLOCATE FIFO BUFFERS FOR EACH OF ENDPOINTS
S16
REVISE SIZES OF FIFO BUFFERS
RETURN